9.0 LIST OF MITIGATION MEASURES AND ENVIRONMENTAL DESIGN CONSIDERATIONS

Through the incorporation of the following mitigation measures and environmental design considerations (i.e., project design features), the proposed Salvation Army Camp and Retreat would result in minimal impacts to the surrounding environments and would result in the protection of over ~~300~~ 395 acres of habitat, including important sensitive species habitat under Reduced Project Alternative I.

9.1 Mitigation Measures

Mitigation measures that will be implemented and included in the Mitigation Monitoring and Reporting Program are listed below by topic area. All mitigation measures would reduce impacts to below a level of significance for Reduced Project Alternative I.

9.1.1 Geology/Soils

MM 2.1.a The applicant shall prepare site-specific geotechnical studies, including a comprehensive soil evaluation, prior to approval of the grading plans and issuance of building permits for each development application under the proposed project. The geotechnical studies shall include specific mitigation requirements as appropriate to each development proposal that reduce seismically-related impacts to below a level of significance, and may include the following measures.

- In areas of proposed development, landslides, rockslides, improperly compacted fill soil, and highly erosive soils will require special attention. Buttresses, stabilizing fill material, or other methods of stabilization shall be required in developed areas where landslides and rockslides are encountered. In areas where landslides and rockslide exist off-site, and where stabilization is not feasible, setbacks shall be required.
- For the purpose of preliminary design, cut and fill slopes shall be designed no steeper than 2:1. The shear strengths of existing soil and rock will generally limit safe allowable slope height. The potential impact of geologic conditions on slope stability shall be evaluated in areas of proposed cut slopes greater than 15 feet in height.
- Proper surface drainage shall be provided and maintained, as it is essential to soil stability and to reduce the potential for erosion. Drainage swales shall be installed on graded pads to conduct storm or irrigation runoff to controlled drainage facilities, and away from buildings and the tops of slopes. These measures shall be taken during construction to ensure that storm and irrigation water does not flow over the tops of cut or fill slopes.

The Salvation Army will implement each measure recommended in the Geotechnical Studies, as required and approved by the County, to ensure seismically-related impacts are reduced to below a level of significance.

MM 2.1.b

- Prior to approval of a grading permit, the applicant shall prepare a grading/construction management plan. This plan shall include the recommendations outlined in a report prepared by a geotechnical engineer regarding all cut and fill slopes and foundation work.

  The grading/construction management plan shall also include the recommendations outlined in a report prepared by a landscape architect regarding the revegetation of graded slopes to ensure proper revegetation. The landscape architect shall pay particular attention to areas that have been stripped of native vegetation or areas of fill material and recommend appropriate erosion control measures. These areas may require desilting basins, improved surface drainage or planting of ground covers early in the improvement process, to reduce the potential for erosion.

  Short-term measures for controlling erosion shall be incorporated into grading plans on-site, as outlined in the Geotechnical studies approved by the County's Department of Public Works. These measures may include sandbag placement and temporary detention basins.

The Salvation Army will implement each measure included in the grading/construction management plan, as approved and required by the County, to reduce impacts associated with soil erosion to below a level of significance.

9.1.2 Biological Resources

MM 2.2.a & b Within the proposed dedicated open space easement, 18.89 acres of oak woodland (15.05 acres Southern Coast Live Oak Riparian Forest, and 3.84 acres Coast Live Oak Woodland) shall be preserved.

Reduced Project Alternative I Mitigation:

MM 2.2.a & b Within the proposed dedicated open space easement, 29.35 acres of oak woodland (25.67 acres Southern Coast Live Oak Riparian Forest, and 3.68 acres Coast Live Oak Woodland) shall be preserved.

MM 2.2.c Within the proposed dedicated open space easement in the northern portion of the site within the Non-Native Grassland habitat adjacent to riparian areas associated with the West Fork of the San Vicente Creek, 0.39 acre of wetland habitat shall be created in accordance with a wetland restoration plan approved by the County.

Reduced Project Alternative I Mitigation:

MM 2.2.c Within the proposed dedicated open space easement in the northern portion of the site within the Non-Native Grassland habitat adjacent to riparian areas associated with the West Fork of the San Vicente Creek, 0.39 acre of wetland habitat shall be created in accordance with a wetland restoration plan approved by the County.

MM Within the proposed dedicated open space easement 35.36 acres of sage scrub (6.46 acres

2.2.d & e of Mafic Southern Mixed Chaparral [a Tier I habitat], 0.05 acre of Diegan Coastal Sage Scrub, and 28.85 acres of Coastal Sage-Chaparral Scrub) shall be preserved.

Reduced Project Alternative I Mitigation:

MM 2.2.d & e Within the proposed dedicated open space easement 41.58 acres of sage scrub, 6.42 acres of Mafic Southern Mixed Chaparral [a Tier I habitat], 4.65 acres of Diegan Coastal Sage Scrub, and 30.51 acres of Coastal Sage-Chaparral Scrub) shall be preserved.

MM 2.2.f & g Within the proposed dedicated open space easement, 223.42 acres of Tier III habitat (223.19 acres of Southern Mixed Chaparral and 0.23 acre of Non-native Grassland) shall be preserved.

Reduced Project Alternative I Mitigation:

MM 2.2.f & g Within the proposed dedicated open space easement, 319.21 acres of Tier III habitat (318.40 acres of Southern Mixed Chaparral and 0.81 acre of Non-native Grassland) shall be preserved.

MM 2.2.h Engelmann Oaks (Group D) shall be preserved through on-site preservation of oak woodlands in the proposed dedicated open space easement.

Reduced Project Alternative I Mitigation:

MM 2.2.h Engelmann Oaks (Group D) shall be preserved through on-site preservation of oak woodlands in the proposed dedicated open space easement.

MM 2.2.i Construction activities shall be prohibited during the California gnatcatcher breeding season (March 1 – August 15~~July 1~~) unless nest monitoring is conducted by a qualified biologist and results indicated the absence of active nests or the completion of the breeding season.

MM 2.2.j Prior to construction within ~~300~~ 500 feet of potential raptor nesting habitat (i.e., riparian or woodland habitat) to be conducted during the raptor breeding season (~~February~~ January 15 through ~~June~~ July 15), the area within ~~300~~ 500 feet of the construction footprint shall be surveyed for the presence of nesting raptors. If active nests are present, construction within 300 feet of the active nest will be delayed until the ~~conclusion of the breeding season~~ nest is abadoned. To avoid any direct and indirect impacts to raptors and/or any migratory birds, grubbing and clearing of vegetation that may support active nests and construction activities adjacent to nesting habitat, should occur outside of the breeding season (January 15 to August 15). If removal of habitat and/or construction activities is necessary adjacent to nesting habitat during the breeding season, the applicant shall retain a County-approved biologist to conduct a pre-construction survey to determine the presence of non-listed nesting migratory birds on or within 100-feet of the construction area, Federally- or State-listed birds (e.g., coastal California gnatcatcher, least Bell's Vireo) on or within 300-feet of the construction area and nesting raptors within 500-feet of the construction area. The preconstruction survey must be conducted within 10 calendar days prior to the start of construction. The results of the survey must be submitted to the County for review and approval prior to initiating any construction activities. If nesting birds are detected by the

County-approved biologist, the following buffers should be established: 1) no work within 100 feet of a non-listed nesting migratory bird nest, 2) no work within 300 feet of a listed bird nest, and 3) no work within 500 feet of a raptor nest. However, the County may reduce these buffer widths depending on site-specific conditions (e.g., the width and type of screening vegetation between the nest and proposed activity) or the existing ambient level of activity (e.g., existing level of human activity within the buffer distance). If construction must take place within the recommended buffer widths above, the project applicant should contact the County to determine the appropriate buffer.

A bio-monitor shall be present on-site during all initial grubbing and clearing of vegetation to ensure that perimeter construction fencing is being maintained and to minimize the likelihood that nests containing eggs or chicks are abandoned or fails due to construction activity. A bio-monitor shall also perform periodic inspections of the construction site during all major grading to ensure that impacts to sensitive plants and wildlife are minimized. These inspections should take place once or twice a week, as defined by the County, depending on the sensitivity of the resources. The bio-monitor shall send weekly reports to the County and shall notify both the County and the Department immediately if clearing is done outside of the permitted project footprint.

Reduced Project Alternative I Mitigation:

MM 2.2.i Construction activities shall be prohibited during the California gnatcatcher breeding season (March 1 - August 15) unless nest monitoring is conducted by a qualified biologist and results indicated the absence of active nests or the completion of the breeding season.

MM 2.2.j Prior to construction within 500 feet of potential raptor nesting habitat (i.e., riparian or woodland habitat) to be conducted during the raptor breeding season (January 15 through July 15), the area within 500 feet of the construction footprint shall be surveyed for the presence of nesting raptors. If active nests are present, construction within 500 feet of the active nest will be delayed until the nest is abandoned.

To avoid any direct and indirect impacts to raptors and/or any migratory birds, grubbing and clearing of vegetation that may support active nests and construction activities adjacent to nesting habitat, should occur outside of the breeding season (January 15 to August 15). If removal of habitat and/or construction activities is necessary adjacent to nesting habitat during the breeding season, the applicant shall retain a County-approved biologist to conduct a pre-construction survey to determine the presence of non-listed nesting migratory birds on or within 100-feet of the construction area, Federally- or State-listed birds (e.g., coastal California gnatcatcher, least Bell's Vireo) on or within 300-feet of the construction area and nesting raptors within 500-feet of the construction area. The preconstruction survey must be conducted within 10 calendar days prior to the start of construction. The results of the survey must be submitted to the County for review and approval prior to initiating any construction activities. If nesting birds are detected by the County-approved biologist, the following buffers should be established: 1) no work within 100 feet of a non-listed nesting

migratory bird nest, 2) no work within 300 feet of a listed bird nest, and 3) no work within 500 feet of a raptor nest. However, the County may reduce these buffer widths depending on site-specific conditions (e.g., the width and type of screening vegetation between the nest and proposed activity) or the existing ambient level of activity (e.g., existing level of human activity within the buffer distance). If construction must take place within the recommended buffer widths above, the project applicant should contact the County to determine the appropriate buffer.

A bio-monitor shall be present on-site during all initial grubbing and clearing of vegetation to ensure that perimeter construction fencing is being maintained and to minimize the likelihood that nests containing eggs or chicks are abandoned or fails due to construction activity. A bio-monitor shall also perform periodic inspections of the construction site during all major grading to ensure that impacts to sensitive plants and wildlife are minimized. These inspections should take place once or twice a week, as defined by the County, depending on the sensitivity of the resources. The bio-monitor shall send weekly reports to the County and shall notify both the County and the Department immediately if clearing is done outside of the permitted project footprint.

9.1.3 Hazards and Hazardous Materials

MM 2.3.a Removal of the two above-ground fuel storage tanks shall comply with all applicable federal, state and local regulations. Any necessary permits shall be obtained prior to removal and relocation. An amendment to the Business Plan shall be approved prior to relocation of the above-ground storage tanks. An Environmental Site Assessment (ESA) will be performed to test for potential soil contamination from the tanks in the existing maintenance yard. The Salvation Army will follow all recommended remediation measures outlined in the ESA. In addition, the Salvation Army will consult with the Ramona Fire Department prior to relocating the tanks for appropriate approval of the new tank location (pers. comm., Delgadillo, S. Ramona Fire Department, April 2000). The new tank location shall be limited to existing developed areas within the project site. The relocation tanks shall be UL-2085 tanks as required by code.

MM 2.3.b The Fire Protection measures and requirements, identified in the Salvation Army Divisional Camp Fire Protection Plan (Dudek, January 2010) shall be implemented.

~~The following conditions shall be included in the Major Use Permit to mitigate for Hazards and Public Safety impacts related to potential fires in the project area.~~

- ~~The Ramona Fire Department determined that a 260,000-gallon water tank at an elevation of approximately 1,665 MSL with a ten-inch on-site water line that connects to the existing six-inch water main in Mussey Grade Road will meet fire flow requirements for the project and will also enhance the flow capacity to fight future fires in the project area. Prior to issuance of building permits, the applicant shall submit to the County, plans approved by the Ramona Municipal Water District Engineering Department for a water system capable of handling the fire flow requirements for the project (existing and proposed buildings).~~

- Prior to the issuance of building permits the appropriate number of fire hydrants and their specific locations, approved by the Ramona Fire Department, will be identified and constructed.

- Automatic sprinklers shall be installed in all existing and new buildings, consistent with the Ramona Fire Code Ordinance 99-199. This shall be determined after the water system plans are approved.

- All on-site roads shall be improved to a minimum 24-foot width with paved surfacing, with the exception of those designated as "existing access road to remain, road not to be paved," (item #4), and "existing road width to remain, road to be paved," as shown on the "Fire Marshal Exhibit: Proposed Site Plan," dated 1/15/02, and revised 4/18/02, and 5/1/02 (Appendix H)

- A lighted map directory shall be provided at every intersection within the proposed project denoting, with numbers, the areas on-site that the particular road leads to.

- "No Parking Fire Lane" signs shall be posted on all roads that have the fire department required width of 24 feet. The number of signs and their placement shall be determined by the Ramona Fire Department.

- A fuel modification zone a minimum of 100 feet in width will be provided around the entire perimeter of each building site, as depicted on the site plan, consistent with Ramona Fire Code Ordinance 99-199.

- A ten-foot wide fuel modification zone shall occur along each side of all fire access roadways.

- The following exceptions to the fuel modification requirements above are granted per the Fire Code:

  - Single specimens of trees, ornamental shrubbery or similar plants used as ground covers, provided that they do not form a means of rapidly transmitting fire from the native growth to any structure.

  - Grass and other vegetation located more than 30 feet from buildings or structures and less than 18 inches (457 mm) in height above the ground need not be removed where necessary to stabilize the soil and prevent erosion.

  - With the approval of the fire authority having jurisdiction, the width of the fuel modification zone may be reduced where fire-resistive structures or other features are constructed. However, in no case shall the fuel modification zone be reduced to less than 30 feet.

- Prior to issuance of building permits, a fire alarm system shall be provided.

- A response map update in a format compatible with current department mapping shall

~~be provided, as specified in the Ramona Fire Code Ordinance 99-199.~~

- ~~The Salvation Army shall, at all times, have two large capacity school buses with drivers or other equivalent vans or buses on the premises at all times when children are attending camp.~~
- ~~The Salvation Army shall conduct a fire drill the first day of every camp period.~~
- ~~The Ramona Fire Department has agreed to, and shall observe an annual fire evacuation/fire drill exercise to ensure proper safety measures have been implemented. After this annual observation and review, the fire department may require more than two large capacity school buses with drivers to be available at the camp for evacuation purposes. To protect family or adult campers who were transported to the camp by bus or van, the Ramona Fire Department may also require one or more additional buses with drivers to be available to evacuate the campers or may require other protective measures.~~
- ~~The yurts will have skirting installed in a manner similar to skirting on trailer or mobile homes.~~

9.1.4 Noise

MM 2.4.a All construction activities shall require the use of temporary sound barriers for operations within 125 feet of any project boundary. Such sound barriers shall be a minimum of eight feet in height. The noise level reduction shall be a minimum of five dBA. Barriers shall be located between the source and the property line at a maximum of 40 feet from the source. Where grading activities occur within 40 feet of the property boundary, the grading plans shall include restrictions that limit the grading to a maximum duration of 24 minutes in an hour.

MM 2.4.b The use of sound amplifying equipment as defined by the County Code (sction 36.402 at any outdoor location is prohibited. All indoor activities involving the use of sound amplifying equipment shall comply with the noise limits defined in the County Noise Code section 36.404.

MM 2.4.c All residential air conditioning units at the Retreat Center (HP3) shall have a Sound Rating of 7.0 Bels, or less per American Refrigeration Institute (ARI) test procedure. Units designated HP1 shall not exceed a Sound Rating of 9.3 Bels; units designated HP2 shall not exceed a sound rating of 9.5 Bels and units designated CU1 and CU2 shall not exceed a sound rating of 8.9 Bels.

MM 2.4.d The Salvation Army Procedures Manual shall include the Special Notice identified in Figures 2.4-4a through 2.4-4c. When performing maintenance activities within potential noise violation areas, maintenance shall be restricted to non-motorized tools. Signs, in both English and Spanish, shall be posted at the potential noise violation areas restricting the use of motorized maintenance equipment. A Special Notice, identifying potential noise violation areas and restricting the use of motorized equipment within such areas, shall be discussed with and, provided to any contracted maintenance crews. This notice shall be posted in locations

explicitly visible to all maintenance crews.

MM 2.4.e Construction activities shall be prohibited during the California gnatcatcher 'breeding season (March 1 – August 15~~July 1~~) unless nest monitoring is conducted by a qualified biologist and results indicated the absence of active nests or the completion of the breeding season.

9.1.5 Aesthetics

MM 2.5.a The proposed Retreat Center access road cut and fill slopes shall be contour-graded to integrate with the natural contours of the adjoining topography and revegetated with native vegetation. Note: This mitigation measure would not be required for Reduced Project Alternative I.

9.1.6 Cultural Resources

MM 2.6.a.1 – 2.6.a.3 All archaeological materials recovered during the significance testing for sites CA-SDI-15113, CA-SDI-15114, CA-SDI-15115, and CA-SDI-15116 shall be curated according to current professional repository standards. The collections and associated records shall be transferred, including title, to an appropriate curation facility within San Diego County, to be accompanied by payment of the fees necessary for permanent curation.

MM 2.6.b Site CA-SDI-15114 is considered significant under CEQA criteria, and mitigation consisting of preservation of the site with a minimum 100-foot buffer via a 246 x 180 foot legally dedicated open space easement shall be created (Confidential Appendix, Figure 7).

9.1.7 Transportation/Traffic

MM 3.1.10 a & b Payment of the Transportation Impact Fee (TIF) will mitigate the project's contribution to the cumulative traffic impacts.

~~Construct the following improvements to the SR-67/ Dye Road/ Highland Valley Road intersection:~~

~~i. Provide a second westbound to southbound left-turn lane from Dye Road to SR-67, and;~~

~~ii. Lengthen the existing northbound to eastbound right-turn pocket from SR-67 to Dye Road to provide a 500-foot long pocket.~~

~~Construct the following improvements to the SR-67/ Mussey Grade Road intersection:~~

~~i. Extend the southbound acceleration lane on SR-67 departing the Mussey Grade Road intersection by 100-feet;~~

~~ii. Widen the intersection approach of Mussey Grade Road at SR-67 to allow for a dedicated right-turn lane to SR-67 northbound, and;~~

~~iii. Widen northbound SR-67 departing the Mussey Grade Road intersection to match the planned extension of the northbound to eastbound right-turn pocket at Dye Road, as described above.~~

~~The County is currently considering a Traffic Impact Fee (TIF) program. The TIF program includes two components, the financing mechanism (i.e., the fee) and a commitment to construct certain road improvements. If the County adopts both components of the TIF program and the TIF program includes the road improvements necessary to mitigate the project's contribution to the cumulative impacts, payment of the TIF will mitigate the project's contribution to the cumulative traffic impacts.~~

9.2 Environmental Design Considerations

The proposed project was designed to minimize impacts to the surrounding environment while keeping within design parameters required by the Ramona Community Plan. The proposed project has been designed very carefully to avoid impacts to sensitive biological resources, especially riparian areas and wetlands, to the maximum extent practicable and to avoid steeply sloped areas to the maximum extent practicable in order to avoid impacts to rocky outcrops, a significant aesthetic as well as biological resource, and to water quality due to runoff.

The proposed building designs would be rustic in style and blend in with the natural setting. In general, proposed building design would have simple, direct massing. Roof forms would be hip, gable or shed in nature, and would reflect the corresponding slope of the subject site. Buildings would be stepped and set into the slopes at their lower floor to follow the contours of the adjacent topography. Building walls in excess of 100 feet would be offset by a minimum of four feet to break up any potentially long mass, so that structures would blend with the natural setting.

The following specific design features are broken into groupings by resource area and will be conditions of approval of the Major Use Permit associated with the proposed project.

All buildings ~~(with the exception of the yurts)~~ shall be rustic in style, to complement the existing structures on the site and to blend into the natural environment surrounding the camp. Buildings shall not exceed the square footages specified in the project description, and building footprints shall follow the general configuration as shown on the overall site plan and enlarged site plan areas. The maximum height of any structure shall not exceed 30 feet above finished grade.

In general, buildings shall have simple, direct massing. ~~Overly abstracted angles and shapes will be discouraged.~~ Visible roof forms shall be Hip, Gable or Shed in nature, and shall reflect the sloping nature of on-site topography. Building walls in excess of 100 feet in length shall be offset by a minimum of four feet, to break up any potentially long mass.

Single-story buildings shall sit on level areas to minimize the topographical impact of their surrounding site. Though the majority of buildings on the site shall be single story structures, the housing structures at the retreat component, the Multi-Purpose Building at the camp's hub, and the Staff Housing west of the Ranch House shall be two stories.

The housing structures at the retreat component shall be stepped, and planted into the slopes at their lower floor, to follow the contours of the adjacent topography. The lower floor of the Multi-Purpose Building shall also be planted into the slope to minimize the visual impact of the overall building. Because the staff housing units are proposed on relatively flat sites, they shall be allowed to be true two-story structures.

Materials for all buildings shall be compatible with the natural surroundings of the site. Exterior wall materials may include slump stone masonry, earth-toned concrete masonry units, stone veneer, plaster, brick, or wood. Metals, or other highly reflective materials shall not be permitted as an exterior wall material, or other ancillary structures.

Glazing shall be of a low reflectance nature. Highly reflective glass shall not be permitted. Glass may be shaded in bronze, green or gray tints only. Other tined colors shall not be permitted. Exterior paint and stain colors shall be limited to earth tones. Bright accent colors shall not be permitted.

All lighting shall comply with the County of San Diego outdoor lighting control ordinances. Low pressure sodium street lights may be installed if deemed necessary for safety. This shall only include intersections, sharp turns, and where there is a sudden change in horizontal or vertical alignment. The exact locations for any streetlights shall be determined when the design for roadways is finalized.

All utility lines shall be below ground.

9.2.1 Biological Resources

- The applicant shall provide evidence that all required state and Federal wetland permits have been obtained or that none are necessary;
- ~~The open space area on-site shall be dedicated as a conservation easement to the County of San Diego with the California Department of Fish and Game as a third party;~~
- Habitat Management Plan (HMP) shall be prepared for the conservation easement and submitted to the County of San Diego prior to grading, clearing or use/reliance on the Major Use Permit. An established conservancy group subject to County approval, shall be selected to manage the habitat in accordance with the approved HMP. The HMP shall include the name of the conservancy group;
- ~~After any trenching in the root zone of oak trees, the tree shall be carefully pruned to remove canopy material proportional to the roots lost or damaged;~~
- If it is necessary to apply an herbicide for weed control before laying asphalt or other impermeable surfaces, one such as dichlobenil (Casoron®) or glyphosate (Roundup®) shall be utilized by a licensed pesticide applicator in order to prevent damage to existing tree roots or roots that later may grow beneath the pavement;
- Any staging/storage areas for equipment and materials shall be located within identified development areas;

- All excavated soils from trenching operations shall be stored above the ordinary high water mark for all drainages;
- Silty turbid water shall not be discharged into any drainage; such water shall be settled, filtered, or otherwise clarified prior to discharge, (this condition may augment, but shall not override anything within the project's Regional Water Quality Control Board Certification);
- Spoil, trash, or any debris shall be promptly removed and transferred to an approved disposal facility off-site;
- Speed bumps or similar speed reduction devices shall be installed from the site entrance to the Retreat Center access road.
- The 15 mph speed limit currently established on the Camp shall be maintained;
- No re-grading of the dirt road "cross" trail shall occur in areas of sensitive plants and new trails shall be prohibited;
- Foot stakes shall be installed on the dirt "cross" trail border every 100 feet, as indicated in Figure 1-14;
- Signage shall be posted at regular 200-foot intervals along both sides of the dirt "cross" trail instructing hikers to remain on the marked trail and refrain from collecting flowers/plants, as indicated in Figure 1-14;
- The existing trail in the northwestern portion of the project site shall be bound by signs that prohibit human intrusion into surrounding habitats and indicate the presence of environmentally sensitive areas;
- Low-pressure sodium lamps shall be used in conjunction with cut-off shields (fully shielded/full cut off lighting) to reduce the adverse effects of artificial lighting spilling into native habitats;
- New lighting shall not be allowed within 100 feet of the property boundary, wildlife corridor, or preserved areas;
- Fencing (non-barbed) shall be constructed at the perimeter of open space easements where they border development (a Camp facility or roadway) to prevent intrusion into the preserve areas;
- ~~Wildlife crossing signage shall be posted in the vicinity of the local movement corridor;~~
- Fencing shall be installed to facilitate use of the Mussey Grade Road culvert at the West Fork of San Vicente Creek by wildlife;
- Signage shall be installed in the area of the Camp entrance to notify visitors of the presence of sensitive flora and fauna within the vicinity and the need for adherence to postings throughout the project site;
- Install Slow – Wildlife Crossing signs and speed bumps at the turnout for the Retreat Center for entering visitors, 100 feet upslope for existing visitors, and on both sides of the road every 250 feet along the camp access road from the junction of the access road with Mussey Grade Road;
- Signage shall be posted along the perimeter of the open space easements which adjoin the project site ~~and more frequently in the vicinity of any sensitive habitat~~ <u>at 200 foot intervals</u>;

- Temporary construction fencing shall be erected to delineate Emergent Wetlands along the roadway. Temporary construction fencing and monitoring shall be maintained throughout the construction period to prevent inadvertent impacts. Permanent split-rail fencing shall be installed and maintained following construction. Both temporary construction and permanent split-rail fencing shall include signs that mark the areas as an "Environmentally Sensitive Area – No Clearing or Trampling of any Sort." (Figure 1-1415)
- Landscaping within the project area shall not include invasive exotic species, as defined by the California Native Plant Society;
- Leash law restrictions shall be posted and enforced on-site;
- Resident staff shall be prohibited from keeping cats~~, unless they are strictly confined to indoors. The applicant shall enforce this regulation with a signed agreement (covenant) with any personnel living temporarily or permanently on-site which details all of the sites rules and regulations and allows for eviction or fee imposition if the regulations are violated~~;
- ~~Promote oak seedling recruitment and growth in the road fire clearance zones;~~
- Conduct weekly fugitive dust monitoring activities from April through November and prior to any large special events;
- Perform road-wetting immediately prior to and during any special events and, if dust levels are such that roadside plants are coated with dirt, immediately after weekly fugitive dust monitoring;
- Remove any trash or roadkill from the internal roadway to avoid luring other animals into the roadway; and,
- All buildings shall be constructed to eliminate cavities and crevasses or other measures to reduce the likelihood of bat colonization. Any unused structure shall be dismantled before bats have an opportunity to colonize it. Any structure slated for removal shall be examined for sensitive bat species before demolition.

9.2.2 Hazards and Hazardous Materials

In order to diminish potential fire emergency impacts, a 650,000-gallon water storage tank (expandable to 800,000-gallons) and supporting water pipeline infrastructure and fire hydrants will be provided as required by the Ramona Municipal Water District. The new water tank shall be located next the the existing 10,000-gallon tank in the central area of the project site to provide necessary water flow in the event of a fire emergency. ~~In order to diminish potential fire emergency impacts, a 260,000-gallon water tank, 60 feet wide and 13 feet high, shall be located next to the existing 10,000-gallon tank in the central area of the project site to provide necessary water flow in the event of a fire emergency. Additionally, all existing and proposed buildings should be retrofitted with fire sprinklers, and removal of Oak trees has been avoided to the maximum extent possible both due to their biological significance and because they do not tend to spread fires.~~

9.2.3 Noise

- Trash collection and deliveries shall not occur within 100 feet of the property boundary.
- Band practice shall not occur outdoors.
- All permanent pool pumps shall be within an enclosure. Enclosures shall be light tight and constructed of any material with a minimum surface weight of 3.5 pounds per square foot. Doors, hatches and other openings shall have full perimeter weather-stripping. The enclosure shall be constructed so that the sides and top are no closer than two feet to any portion of the pump. The enclosure shall have a minimum Sound Transmission Class rating of 40 and a ventilation fan rating not to exceed 15 Sones. The surface area for each intake and exhaust openings shall not exceed ten percent of their respective total surface area.

9.2.4 Hydrology/Water Quality

BMP's have been incorporated into the project in order to minimize project impacts per the County of San Diego Watershed Protection, Stormwater Management and Discharge Control Ordinance (WPO)(~~Ordinance Nos. 9424 and 9426,~~ County Codes ~~§§~~ Section 67.801 et seq.). The BMPs are part of the project design and will also be included as conditions of approval if the County approves the Major Use Permit for the project.

The following Construction BMPs from the California Storm Water Quality Association (CASQA) BMP Handbook can be implemented for the project's Storm Water Pollution Prevention Plan (SWPPP):

Erosion Controls

EC-1 Scheduling
EC-2 Preservation of Existing Vegetation
EC-5 Soil Binders
EC-6 Straw Mulch
EC-7 Geotextiles and Mats
EC-8 Wood Mulching
EC-9 Earth Dikes and Swales
EC-10 Velocity Dissipation Devices
EC-11 Slope Drains

Sediment Controls

SE-1 Silt Fence
SE-2 Desilting Basin
SE-3 Sediment Trap
SE-4 Check Dam
SE-5 Fiber Rolls
SE-7 Street Sweeping
SE-8 Sandbag Barrier
SE-9 Straw Bale Barrier
SE-10 Storm Drain Inlet Protection
SE-11 Chemical Treatment

Tracking Controls

TC-1 Stabilized Construction Entrance / Exit
TC-2 Stabilized Construction Roadway
TC-3 Entrance / Outlet Tire Wash
WE-1 Wind Erosion Control

Non-Storm Water Management Controls

NS-1	Water Conservation Practices	NS-9	Vehicle & Equipment Fueling
NS-2	Dewatering Operations	NS-10	Vehicle & Equipment Maint.
NS-3	Paving and Grinding Operations	NS-11	Pile Driving Operations
NS-4	Temporary Stream Crossing	NS-12	Concrete Curing
NS-5	Clear Water Diversion	NS-13	Concrete Finishing
NS-6	IC/ID Detection and Reporting	NS-14	Material Use Over Water
NS-7	Potable Water / Irrigation	NS-15	Demolition Over Water
NS-8	Vehicle & Equipment Cleaning	NS-16	Temporary Batch Plants

Waste Management and Materials

WM-1	Material Delivery & Storage	WM-6	Hazardous Waste
WM-2	Material Use	WM-7	Contaminated Soil
WM-3	Stockpile Management	WM-8	Concrete Waste
WM-4	Spill Prevention and Control	WM-9	Sanitary / Septic Waste
WM-5	Solid Waste Management		

Monitoring Program

A monitoring program will also be included in the SWPPP that outlines storm event inspections of the site and a sampling plan in accordance with the General Construction Permit (GCP). "The goals of [the program] are (1) to identify areas contributing to a storm water discharge; (2) to evaluate whether measures to reduce pollutant loadings identified in the SWPPP are adequate, properly installed, and functioning in accordance with the terms of the General Permit; and (3) whether additional control practices or corrective maintenance activities are needed." If a discharge is observed during these inspections, a sampling and analysis of the discharge is required.

Sampling and Analysis

"Any breach, malfunction, leakage, or spill observed which could result in the discharge of pollutants to surface waters that would not be visually detectable in storm water shall trigger the collection of a sample of discharge...The goal of the sampling and analysis is to determine whether the BMPs employed and maintained on site are effective in preventing the potential pollutants from coming in contact with storm water and causing or contributing to an exceedance of water quality objectives in the receiving waters." In any case of breakage and potential for non visible pollution, sampling and analysis will be required to ensure that the beneficial uses of downstream receiving waters are protected. In addition, sampling is required for any site which directly discharges runoff into a receiving water listed in the Attachment 3 of the GCP listed as impaired for sedimentation.

Project post-construction BMPs include the following site design BMPs, low impact development BMPs, and source control BMPs:

Site Design BMPs

The project includes both standard Site Design BMPs based on County of San Diego principles contained in the County of San Diego Standard Urban Storm Water Mitigation Plan (SUSMP) manual,

as well as project specific BMPs. The site design principles outlined in the County of San Diego SUSMP Manual are listed below.

STEP 1: MAINTAIN PRE-DEVELOPMENT RAINFALL RUNOFF CHARACTERISTICS

DESIGN CONCEPT	DESCRIPTION
MINIMIZE IMPERVIOUS FOOTPRINT	The width of parking areas, sidewalks and private roads have been kept to the minimum required. In addition, the number of street cul-de-sacs has been minimized and landscaped areas have been incorporated to reduce their impervious cover. Where possible, proposed roadways and parking areas are proposed to be constructed with native granular soils and existing unpaved roadways are proposed to remain unpaved unless otherwise required by the fire department.
CONSERVE NATURAL AREAS	A vast amount of open space will be preserved for the project area.
MIMIMIZE DCIAS (DIRECTLY CONNECTED IMPERVIOUS AREAS)	Vegetated swales, extended detention basins, cisterns receiving roof runoff, and rain gardens are proposed onsite. In total, the project proposed minimal DCIAs, and has a significant amount of water quality features designed to minimize "hard piping" to storm drain. Where landscaping is proposed, the project will drain rooftops, sidewalks, walkways, and other impervious areas into landscaping where feasible. This will be designated and designed upon final engineering.

STEP 2: PROTECT SLOPES AND CHANNELS
Slopes located in the open space areas will be predominately undisturbed by the proposed project. Proposed slopes will be adequately vegetated and stabilized during and after construction. Runoff will be routed away from the top of steep slopes. Where possible, proposed construction is located outside of existing channels.

Projet specific Site Design BMPs include the following:

- The proposed site expansion has been significantly reduced to leave more undisturbed land and natural water quality treatment. ~~The original plan had a maximum capacity of 1,000 people and included 75 buildings with additional remote camping and 35 R.V. hookups with a shower building. The proposed site has been reduced to a maximum capacity of 748 people with 65 buildings, and no R.V.s.~~
- Steep slopes and high erosion areas have been avoided to the extent feasible in the site plan to minimize any potential erosion.
- Approximately 30 percent of the site, at the western end of the site, is being dedicated as open space easement. This guarantees that this area will remain undeveloped and natural.
- Landscape is provided around much of the disturbed areas to act as natural water quality treatment facilities.
- A ridge/grade break will be provided around the fuel tank area to prevent any drainage runoff from the fueling area. Precautions will be taken to ensure no spills enter the drainage facilities in the vicinity. A spill response procedures and spill response kit will be located at the fueling facility. Any drainage structures near the fueling area will be fitted with catch basin inserts.
- Concrete pavement will be provided in the area under the fuel tank and will extend at least 6.5 feet from the corner of each fuel dispenser, as detailed in the County of San Diego's Storm Water Standards Manual.
- ~~Asphalt berms will be provided along steep roads (grades greater than 10 percent) in areas 3, 5, and 6 to minimize the erosion along the roads (Civil Grading Plans for Areas 3, 5, and 6).~~
- Runoff from Area 1 will be captured at various points by drainage pipes and released toward natural open space. This travel through open space allows for natural water quality treatment, as emphasized by the County. In addition, the flow will be spread out to decrease the discharge velocity (Civil Grading Plans for Area 1 for drainage flows).
- Runoff in Areas 2-6 will be directed toward vegetated swales which will also provide natural water quality treatment (Civil Grading Plans for swale locations).
- The overflow parking in Area 5 will be constructed of decomposed granite to decrease the amount of impervious area on-site.
- Riprap will be placed at detention basin outlet points to dissipate energy.
- Use of nutrient rich fertilizers will be minimized.
- Native species will be used as much as possible in landscaping to limit the amount of irrigation and fertilizers required.

Low Impact Development BMPs

The project includes Low Impact Development (LID) BMPs based on County of San Diego design concepts. The design concepts outlined in the County of San Diego SUSMP Manual are listed below.

1. Conserve natural Areas, Soils, and Vegetation-County LID Handbook 2.2.1

LID DESIGN CONCEPT	DESCRIPTION
Preserve well draining soils (Type A or B)	There are Type B Soils located throughout the majority of the site. The only location of Type C soils is in the southeast portion of the site where Area 1 and the southwesterly portion of Area 2 are located. See attachment C for relevant information from the USDA Soil Maps. Where feasible, locations of Type B soils are being preserved.
Preserve Significant Trees	A large number of significant trees will be preserved as the vast majority of the property will remain undisturbed.
Other. Description:	All natural vegetation and habitats will be preserved in areas that are to remain undisturbed.

2. Miimize Disturbance to Natural Drainages-County LID Handbook 2.2.2

LID DESIGN CONCEPT	DESCRIPTION
Set-back development envelope from drainages	Development will not be located in areas of major drainage.
Restrict heavy construction equipment access to planned green/open space areas.	Heavy construction equipment will not be permitted to encroach upon open space areas unless it is unavoidable regarding the construction of a portion of the proposed project.
Other: Description	

- Employees of the camp/retreat site will receive training regarding the proper disposal of chemicals and grease, swimming pool water, landscape debris, and litter.
- When the swimming pool is emptied, discharge water will be de-chlorinated with a de-chlorination kit to less than one PPM chlorine, as stated in County Code Section 67.805.(d)(9).~~67.806 of Ordinance No. 9424.~~ When the filters are cleaned or backwashed, the water will go into a septic tank that leeches into the ground. The amount of water associated with backwashing the filters is relatively small and can be handled by the camp's leech fields.
- Swimming pool chemicals will be stored in a locked, gated area in secondary containment wells. The wells protect against potential leaks. The chemicals themselves are stored in plastic covered drums.
- Grease traps will be constructed with the kitchen to limit any pollution from excess grease.
- The litter in the various site trash cans will be emptied after each meal and disposed of in the large, covered dumpsters. General grounds maintenance will occur at least once a week. During that time, the maintenance staff will remove any trash left on the camp ground.

- The managerial staff will conduct a review of the facilities periodically to ensure the BMPs are being practiced and are functioning effectively.
- The majority of vehicle maintenance will be minor, such as changing spark plugs and oil. Major vehicle repairs and maintenance will be done off-site at an auto facility. Vehicles and equipment will be maintained and serviced per the guidelines set forth in the County of San Diego's Storm Water Standards Manual, Section C.3.2 ~~(Appendix G).~~
- Landscape debris will be disposed of in covered trash receptacles.
- Absorbent rags will be kept readily accessible in the maintenance areas for spill response.
- Parking lots will be swept ~~periodically~~ using street sweepers or manually. Only dry methods will be allowed. Sweeping of parking areas and/or roadways paved with asphalt will occur monthly during the first year after the project is completed. After the first year, frequency of sweeping will be reconsidered and adjusted to ensure that run-off would not contain pollutants.
- Two five-gallon covered buckets will be located on-site to store waste oil and used oil filters for proper disposal and recycling.
- The San Diego County Department of Environmental Health (DEH) requires a Business Plan for businesses which use, handle, or store more than 55 gallons of hazardous substance. The Business Plan contains basic information about the location, type, quantity, and health risks of the hazardous materials stored, used or disposed of by a business. The Salvation Army currently has a Business Plan for the two above ground fuel storage tanks (Hazardous Materials Business Plan H35642). The existing Business Plan will be amended and approved by DEH prior to any activity involving the tanks. Upgrades to the tanks will be performed if determined necessary by the DEH or any other governing agency.
- Since the site has a business plan, DEH will visit the site twice a year to inspect for compliance with regulations. In addition, the business plan is reviewed every three years.
- Fuel tanks are fueled by the Ramona Oil Company, Inc., an industry professional.
- Prior to relocating the tanks, consultation with the Ramona Fire Department is required regarding specific tank details.
- AmeriGas maintains the propane gas tanks on-site. They are checked bi-monthly by AmeriGas personnel. If a leak is noticed, AmeriGas will repair the leak.
- Chemicals and maintenance materials such as paint thinners and acetone will be stored in the supply storage building in the maintenance area, Area 5, under cover. This cover will limit any possible contact with runoff and storm water.
- All maintenance activities will be performed in the new maintenance building, under cover also. Materials and waste will be kept indoors and disposed of properly in waste containers.
- Fuel tanks will be fitted with a secondary containment product, sized to 110 percent capacity.
- Proper cleaning of canteen.

- Proper disposal of waste from the infirmary.
- Employ Integrated Pest Management Principles

  – The need for pesticide use in the project design will be eliminated and/or reduced by:

    - Planting pest-resistant or well-adapted plant varietals such as native plants

    - Discouraging pests by designing the site and landscape to employ pollution prevention as a first-line of defense.

Non-retail fuel dispensing areas shall comply with Standard Urban Stormwater Management Plan (SUSMP) Section 4.2 Principal 7.j and contain the following:

- Overhanging roof structure or canopy. The cover's minimum dimensions must be equal to or greater than the area within the grade break. The cover must not drain onto the fuel dispensing area and the downspouts must be routed to prevent drainage across the fueling area. The fueling area shall drain to the project's treatment control BMP(s) prior to discharging to the storm water conveyance system.
- Paved with Portland cement concrete (or equivalent smooth impervious surface). The use of asphalt concrete shall be prohibited.
- Have an appropriate slope to prevent ponding, and must be separated from the rest of the site by a grade break that prevents run-on of runoff from surrounding areas.
- At a minimum, the concrete fuel dispensing area must extend 6.5 feet from the corner of each fuel dispenser, or the length at which the hose and nozzle assembly may be operated plus one foot, whichever is less.

When the swimming pool is emptied, discharge water will be de-chlorinated with a de-chlorination kit to less than one PPM chlorine, as stated in Section 67.805(d)(9). When the filters are cleaned or backwashed, the water will discharge to a septic tank that leeches into the ground. The amount of water associated with backwash of filters is relatively small and can be handled by the camp's leech fields.

Storage of hazardous materials shall meet SUSMP Source Control BMPs Section 4.2 Principal 4, as follows:

- Hazardous materials with the potential to contaminate urban runoff shall either be: (a) placed in an enclosure such as, but not limited to, a cabinet, shed, or similar structure that prevents contact with runoff or spillage to the storm water conveyance system; or (b) protected by secondary containment structures such as berms, dikes, or curbs.
- The storage area shall be paved and sufficiently impervious to contain leaks and spills.
- The storage area shall have a roof or awning to minimize direct precipitation within the secondary containment area.

Treatment Control BMPs:

Additionally, the following post-construction treatment control BMPs and BMP design Parameters are part of the project:

- Extended Detention Basins will be provided in Areas 1, 2, 3, 4, and 6. These basins will be used as the primary treatment control BMPs in these areas. These basins will detain low flows and the first flush of storm events, causing sediment and particulate matter to settle out. By removing particulates, the BMP also removes the pollutants attached to the particulates.

- Vegetated swales will be used in all areas as natural water quality treatment for pretreatment of runoff prior to discharge into the detention basins. For the southerly portion of Area 5, where proposed work is minimal and only involves the relocation of the maintenance and storage facilities, vegetated swales will be used as the primary treatment control BMPs. ~~the removal of heavy metals and sediments from runoff.~~

- Detention basins will be designed to treat the volume of runoff produced from a 24-hour 85th Percentile storm event by detaining the water for a minimum of 24 hours and a maximum of 72 hours. This detention time allows enough time for sediments and particulate matters to settle out of the water, but should not create a vector control problem since the basin will be emptied. The detention basins will be unlined.

- The water quality outlet will be a perforated riser with hole size and number of holes designed to provide a detention time between 24 and 72 hours. This riser will also serve as the outlet control for the basin and will be perforated over its entire height. The diameter of the riser will be designed based on the critical condition in which the flow through the riser approaches the emergency spillway condition. All additional higher flows will be conveyed by the emergency spillway. The top edge of the riser will be analyzed as a weir. The riser diameter will be sized to handle the 10 year storm, and the emergency spillway will accommodate the 100 year storm event. Either a trash rack/debris screen will be placed on top and around the riser or a rock pile will be placed around the riser to prevent debris from clogging it. Calculations regarding the design of the riser pipe and emergency spillway are not included in this SWM~~M~~P, and will be made at the time of final engineering and preparation of final grading and/or improvement plans and the final hydrology/hydraulic study.

- The detention basin is preliminarily designed with 3:1 slopes to allow tracked vehicles to access the basin bottom for maintenance. Detention basins will be fenced for safety reasons. The size of the detention basins is calculated from the formulas recommended in *Urban Runoff Quality Management, WEF Manual of Practice No. 23/ASCE Manual of practice No. 87*, (Fuscoe Engineering, 2006~~3~~).

- Vegetated swales are located within every developed area on-site. As the runoff flows through the swale, the vegetation will provide some removal of pollutants. Vegetated swales will be planted with native plants to minimize maintenance and irrigation needs. The main function of the swales is to act as a conveyance for storm water. In most areas, detention basins will be provided. Therefore, the swales will provide enhanced water quality treatment, but will not be the main treatment control BMP. In many areas, the swales may be steep due to topography constraints. These swales will need

to be heavily planted to protect against erosion. As a result of the steeper slopes; however, the water quality treatment will be minimal.

- The maintenance area in Area 5 is the only area in which a vegetated swale will be used as a treatment control BMP. The vegetated swale will be designed with a maximum four percent slope. Ideally, the swale will have a one to two percent slope. The swale will be as long as possible to allow for the longest infiltration and filtration time. ~~There will be a minimum of nine minutes travel time through the swale to ensure proper water quality treatment.~~ The swale will be planted with County approved native vegetation. There will be minimal irrigation and maintenance required for native vegetation. The swale will be trapezoidal in shape with less than 3:1 side slopes. The bottom of the swale will be two to eight feet wide. The swale will be designed to convey two year storms without erosive velocities. It will also have enough capacity to convey the 10-year storm.
- A rain garden will be included in Area 2 as an infiltration BMP. The rain garden will be designed in accordance with the seven requirements the County places on infiltration BMPs.

~~It shall be noted that the project does not propose any infiltration BMPs. Therefore, restrictions on infiltration BMPs are not addressed in this report.~~ Although catch basin filter inserts are not proposed as a primary BMP for the project, any drainage structures near the fueling area will be fitted with catch basin inserts as a spill control measure.

Operations and Maintenance

The Salvation Army will be responsible for the maintenance and funding of all post-construction BMPs. No easements or agreements relating to long-term BMP maintenance are needed since the BMPs are private and are located on private property. The Retreat Center is currently staffed with employees that take care of the camp grounds. This staff will also be responsible for maintaining the various BMPs. The grounds superintendent will keep a log of maintenance activities and evaluation of BMP conditions.

The Salvation Army will also be responsible for funding the BMP maintenance. This funding will be included in its annual maintenance budget. The estimated maintenance costs are $8,000 to $10,000 per year. The majority of the costs will be time spent by the Salvation Army's maintenance staff to maintain and inspect BMPs. Any money left over in the budget should be put into a "contingency fund" and used in the event a large amount of maintenance work is required.

If the project is approved, the following requirements will be included as Conditions of Approval. Satisfaction of these conditions would be required prior to use and reliance.

(1) Submit a complete “Engineer’s Report for BMP Maintenance”.

(2) Dedicate all treatment control BMPs to the County of San Diego in accordance with the County Watershed Protection, Stormwater Management, and Discharge Control Ordinance.

(3) Form a "Stormwater Maintenance Zone" under the County Flood Control District, including taking all actions and submitting all required forms.

(4) Deposit $4,000, and pay all costs associated with reviewing the Engineer's Report and formation of the "Stormwater Maintenance Zone".

(5) Pay an amount equal to twenty-four (24) months of maintenance for the entire project as estimated in the approved Engineer's Report.

The following BMP maintenance plan guidelines shall be adhered to as part of the project:

- The detention basins are Second Category BMPs. Inspections of detention basins will occur once to twice a month by the maintenance staff. Inspections will also occur after large storm events and on a weekly basis during periods of wet weather. An agreement will be entered into with the County, which will ~~function two ways~~ require:
  - ~~it will commit t~~The land to be~~ing~~ used only for the purposes of the BMP; and,
  - ~~it will include an agreement by t~~The landowner and future owners, to maintain the facilities in accordance with the SWM~~M~~P. ~~(this obligation will be passed on to future purchasers or successors of the landowner, as a covenant).~~
- Trash and debris will be removed from detention basins on an as-needed basis. The outlet riser will be inspected and debris and sediment removed as often as necessary to ensure the riser functions properly. Any accumulated materials will be removed immediately from the basin when the detention volume is decreased by approximately ten percent or the sediment is 18 inches deep. The materials will be removed by the maintenance staff. Removed materials are not considered hazardous waste and can be disposed of as landscaping material. If it is determined that hazardous waste has been deposited into the basin, the suspected waste will be analyzed to determine disposal options.
- Vegetation in the basin should be kept to a maximum height of 18 inches. Vegetation will be trimmed and mowed as necessary, trees and woody vegetation shall be removed.
- The banks of the basin will be inspected for vegetative stabilization. Banks will be replanted as necessary. If erosion has been severe, other measures should be taken. Erosion control blankets or sodding should be used. Banks will also be inspected for structural integrity. Any repairs will be made within 10 working days.
- Fences will be inspected along with regular inspections. Fence repairs needed to protect the security of the site will be performed within 10 days.
- Vegetated swales are First Category BMPs. Inspections of vegetated swales will also occur once a month by the maintenance staff. Additionally, inspections will occur after large storm events and on a weekly basis during periods of wet weather.
- If standing water is observed, it will be removed to prevent any mosquito breeding or aquatic plant growth.
- Trash and debris and any other obstructions will be removed as necessary.

- Landscaping maintenance will be necessary for the plants. The swales will be planted with native vegetation rather than non-native grass seed, minimizing the extent of landscape maintenance. As this maintenance occurs, exposed soils will be raked to break up the surface and to mix any settled fines into the soil. If clogging is observed, it may be necessary to remove some of the accumulated soils. If erosion is occurring, erosion blankets, riprap, or additional planting will be used to minimize the erosion.
- Parking lots will be swept periodically to remove significant accumulations of oil, grease, trash and debris. Sweeping can be done either manually or with a street sweeper. Accumulated debris will be removed from the parking lots and disposed of in a covered trash receptacle to prevent any wind dispersion. During the first year of operation, parking lots will be swept monthly. After the first year, the frequency of sweeping will be re-considered and adjusted (either more or less frequently) as site conditions require to ensure that run-off would not contain pollutants.
- Yearly training of employees will be conducted. Training will include review of previously discussed instructions and formal training of new employees.
- Material storage area will be checked monthly to ensure that there has been no damage to it. The material storage area will also be checked weekly during the wet season ~~And~~ to make sure there is no source of potential contact with storm water, such as a leak in the roof.
- Dumpster will be checked weekly to ensure cover is not damaged and that it fully covers dumpster.
- Secondary containment product for the fuel tank will be checked monthly to ensure that is still in good condition and able to intercept any fuel spill.
- Steps taken to de-chlorinate the swimming pool water will be documented.
- BMP inspections and modifications will be documented.

~~A Storm Water Management and Maintenance Plan (SWMMP) has been prepared for the proposed project (FUSCOE, 2003) (Appendix G). The SWMMP addresses site hydrology, soil conditions, potential pollutants, proposed Best Management Practices (BMPs), and a maintenance plan. The following discussion summarizes the SWMMP.~~

~~BMP's have been incorporated into the project in order to minimize project impacts per the County of San Diego Watershed Protection, Stormwater Management and Discharge Control Ordinance (WPO)(Ordinance Nos. 9424 and 9426, County Codes §§ 67801 et seq.). The BMPs are considered part of the project design and will be included as conditions of approval of the Major Use Permit associated with the project.~~

~~Construction BMPs from the Caltrans Storm Water Quality Handbook (2002) will be implemented as follows (the Caltrans detail is listed next to each BMP):~~

- ~~Silt Fence (SC-1)~~
- ~~Desilting Basins (All desilting basins have been sized according to the County of San Diego's design standards and designed by a registered civil engineer)~~
- ~~Stockpile Management (WM-3)~~

- ~~Storm Drain Inlet Protection (SC-10)~~
- ~~Material Delivery and Storage (WM-1)~~
- ~~Material Use (WM-2)~~
- ~~Concrete Waste Management (WM-8)~~
- ~~Paving and Grinding Operations (NS-3)~~
- ~~Solid Waste Management (WM-5)~~
- ~~Vehicle and Equipment Maintenance (NS-10)~~
- ~~Water Conservation Practices (NS-1)~~
- ~~Preservation of Existing Vegetation (SS-2)~~
- ~~Street Sweeping and Vacuuming (SC-7)~~
- ~~Spill Prevention and Control (WM-4)~~

~~Project post-construction BMPs shall include the following site design BMPs and source control BMPs:~~

- ~~The proposed site expansion has been significantly reduced to leave more undisturbed land and natural water quality treatment. The original plan had a maximum capacity of 1000 people and included 75 buildings with additional remote camping and 35 R.V. hookups with a shower building. The proposed site has been reduced to a maximum capacity of 748 people with 65 buildings, and no R.V.s.~~
- ~~Steep slopes and high erosion areas have been avoided in the site plan to minimize any potential erosion.~~
- ~~Approximately 30 percent of the site, at the western end of the site, is being dedicated as open space easement. This guarantees that this area will remain undeveloped and natural.~~
- ~~Landscape is provided around much of the disturbed areas to act as natural water quality treatment facilities.~~
- ~~A ridge/grade break will be provided around the fuel tank area to prevent any drainage runoff from the fueling area. Precautions will be taken to ensure no spills enter the drainage facilities in the vicinity. A spill response procedure and spill response kit will be located at the fueling facility. Any drainage structures near the fueling area will be fitted with catch basin inserts.~~
- ~~Concrete pavement will be provided in the area under the fuel tank and will extend at least 6.5 feet from the corner of each fuel dispenser, as detailed in the County of San Diego's Storm Water Standards Manual.~~
- ~~Asphalt berms will be provided along steep roads (grades greater than ten percent) in areas 3, 5, and 6 to minimize the erosion along the roads (Civil Grading Plans for Areas 3, 5, and 6).~~
- ~~Runoff from Area 1 will be captured at various points by drainage pipes and released toward natural open space. This travel through open space allows for natural water quality treatment, as~~

emphasized by the County. In addition, the flow will be spread out to decrease the discharge velocity (Civil Grading Plans for Area 1 for drainage flows).

- Runoff in Areas 2-6 will be directed toward vegetated swales which will also provide natural water quality treatment (Civil Grading Plans for swale locations).
- The overflow parking in Area 5 will be constructed of decomposed granite to decrease the amount of impervious area on-site.
- Riprap will be placed at detention basin outlet points to dissipate energy.
- Employees of the camp/retreat site will receive training regarding the proper disposal of chemicals and grease, swimming pool water, landscape debris, and litter.
- When the swimming pool is emptied, discharge water will be de-chlorinated with a de-chlorination kit to less than one PPM chlorine, as stated in Section 67.806 of Ordinance No. 9424. When the filters are cleaned or backwashed, the water will go into a septic tank that leeches into the ground. The amount of water associated with backwashing the filters is relatively small and can be handled by the camp's leech fields.
- Swimming pool chemicals will be stored in a locked, gated area in secondary containment wells. The wells protect against potential leaks. The chemicals themselves are stored in plastic covered drums.
- Grease traps will be constructed with the kitchen to limit any pollution from excess grease.
- The litter in the various site trash cans will be emptied after each meal and disposed of in the large, covered dumpsters. General grounds maintenance will occur at least once a week. During that time, the maintenance staff will remove any trash left on the camp ground.
- The managerial staff will conduct a review of the facilities periodically to ensure the BMPs are being practiced and are functioning effectively.
- The majority of vehicle maintenance will be minor, such as changing spark plugs and oil. Major vehicle repairs and maintenance will done off-site at an auto facility. Vehicles and equipment will be maintained and serviced per the guidelines set forth in the County of San Diego's Storm Water Standards Manual, Section C.3.2 (Appendix G).
- Landscape debris will be disposed of in covered trash receptacles.
- Absorbent rags will be kept readily accessible in the maintenance areas for spill response.
- Parking lots will be swept periodically using street sweepers or manually. Only dry methods will be allowed.
- Two five-gallon covered buckets will be located on-site to store waste oil and used oil filters for proper disposal and recycling.
- The San Diego County Department of Environmental Health (DEH) requires a Business Plan for businesses which use, handle, or store more than 55 gallons of hazardous substance. The Business Plan contains basic information about the location, type, quantity, and health risks of the hazardous materials stored, used or disposed of by a business. The Salvation Army currently has a Business Plan

for the two above ground fuel storage tanks (Hazardous Materials Business Plan H35642). The existing Business Plan will be amended and approved by DEH prior to any activity involving the tanks. Upgrades to the tanks will be performed if determined necessary by the DEH or any other governing agency.

- Since the site has a business plan, DEH will visit the site twice a year to inspect for compliance with regulations. In addition, the business plan is reviewed every three years.
- Fuel tanks are fueled by the Ramona Oil Company, Inc., an industry professional.
- Prior to relocating the tanks, consultation with the Ramona Fire Department is required regarding specific tank details.
- AmeriGas maintains the propane gas tanks on site. They are checked bi-monthly by AmeriGas personnel. If a leak is noticed, AmeriGas will repair the leak.
- Chemicals and maintenance materials such as paint thinners and acetone will be stored in the supply storage building in the maintenance area, Area 5, under cover. This cover will limit any possible contact with runoff and storm water.
- All maintenance activities will be performed in the new maintenance building, under cover also. Materials and waste will be kept indoors and disposed of properly in waste containers.
- Fuel tanks will be fitted with a secondary containment product, sized to 110 percent capacity.

Additionally, the following post-construction treatment control BMPs and BMP design Parameters shall be part of the project:

- Extended Detention Basins will be provided in Areas 2, 3, 4, and 6. These basins will detain low flows and the first flush of storm events, causing sediment and particulate matter to settle out. By removing particulates, the BMP also removes the pollutants attached to the particulates.
- Vegetated swales will be used in all areas as natural water quality treatment for the removal of heavy metals and sediments from runoff.
- Detention basins will be designed to treat the volume of runoff produced from a 24-hour 85th Percentile storm event by detaining the water for a minimum of 24 hours and a maximum of 72 hours. This detention time allows enough time for sediments and particulate matters to settle out of the water, but should not create a vector control problem since the basin will be emptied. The detention basins will be unlined.
- The water quality outlet will be a perforated riser with hole size and number of holes designed to provide a detention time between 24 and 72 hours. This riser will also serve as the outlet control for the basin and will be perforated over its entire height. The diameter of the riser will be designed based on the critical condition in which the flow through the riser approaches the emergency spillway condition. All additional higher flows will be conveyed by the emergency spillway. The top edge of the riser will be analyzed as a weir. The riser diameter will be sized to handle the 10 year storm, and the emergency spillway will accommodate the 100 year storm event. Either a trash rack/debris screen will be placed on top and around the riser or a rock pile will be placed around

the riser to prevent debris from clogging it. Calculations regarding the design of the riser pipe and emergency spillway are not included in this SWMMP, and will be made at the time of final engineering and preparation of final grading and/or improvement plans and the final hydrology/hydraulic study.

- The detention basin is preliminarily designed with 3:1 slopes to allow tracked vehicles to access the basin bottom for maintenance. Detention basins will be fenced for safety reasons. The size of the detention basins is calculated from the formulas recommended in *Urban Runoff Quality Management, WEF Manual of Practice No. 23/ASCE Manual of practice No. 87*, (Fuscoe Engineering, 2003).

- Vegetated swales are located within every developed area on site. As the runoff flows through the swale, the vegetation will provide some removal of pollutants. Vegetated swales will be planted with native plants to minimize maintenance and irrigation needs. The main function of the swales is to act as a conveyance for storm water. In most areas, detention basins will be provided. Therefore, the swales will provide enhanced water quality treatment, but will not be the main treatment control BMP. In many areas, the swales may be steep due to topography constraints. These swales will need to be heavily planted to protect against erosion. As a result of the steeper slopes; however, the water quality treatment will be minimal.

- The maintenance area in Area 5 is the only area in which a vegetated swale will be used as a treatment control BMP. The vegetated swale will be designed with a maximum four percent slope. Ideally, the swale will have a one to two percent slope. The swale will be as long as possible to allow for the longest infiltration and filtration time. There will be a minimum of 9 minutes travel time through the swale to ensure proper water quality treatment. The swale will be planted with County approved native vegetation. There will be minimal irrigation and maintenance required for native vegetation. The swale will be trapezoidal in shape with less than 3:1 side slopes. The bottom of the swale will be two to eight feet wide. The swale will be designed to convey two year storms without erosive velocities. It will also have enough capacity to convey the ten-year storm.

The following BMP maintenance guidelines shall be adhered to as part of the project:

- The detention basins are Second Category BMPs. Inspections of detention basins will occur once to twice a month by the maintenance staff. Inspections will also occur after large storm events and on a weekly basis during periods of wet weather. An agreement will be entered into with the County, which will function to ways:

  - it will commit the land to being used only for the purposes of the BMP; and,

  - it will include an agreement by the landowner, to maintain the facilities in accordance with the SWMMP (this obligation will be passed on to future purchasers or successors of the landowner, as a covenant).

- Trash and debris will be removed from detention basins on an as-needed basis. The outlet riser will be inspected and debris and sediment removed as often as necessary to ensure the riser functions properly. Any accumulated materials will be removed immediately from the basin when the detention volume is decreased by approximately ten percent or the sediment is 18 inches deep. The

materials will be removed by the maintenance staff. Removed materials are not considered hazardous waste and can be disposed of as landscaping material. If it is determined that hazardous waste has been deposited into the basin, the suspected waste will be analyzed to determine disposal options.

- Vegetation in the basin should be kept to a maximum height of 18 inches. Vegetation will be trimmed and mowed as necessary.
- The banks of the basin will be inspected for vegetative stabilization. Banks will be replanted as necessary. If erosion has been severe, other measures should be taken. Erosion control blankets or sodding should be used. Banks will also be inspected for structural integrity. Any repairs will be made within ten working days.
- Fences will be inspected along with regular inspections. Fence repairs needed to protect the security of the site will be performed within ten days.
- Vegetated swales are First Category BMPs. Inspections of vegetated swales will also occur once a month by the maintenance staff. Additionally, inspections will occur after large storm events and on a weekly basis during periods of wet weather.
- If standing water is observed, it will be removed to prevent any mosquito breeding or aquatic plant growth.
- Trash and debris and any other obstructions will be removed as necessary.
- Landscaping maintenance will be necessary for the plants. The swales will be planted with native vegetation rather than non-native grass seed, minimizing the extent of landscape maintenance. As this maintenance occurs, exposed soils will be raked to break up the surface and to mix any settled fines into the soil. If clogging is observed, it may be necessary to remove some of the accumulated soils. If erosion is occurring, erosion blankets, riprap, or additional planting will be used to minimize the erosion.
- Parking lots will be swept periodically to remove significant accumulations of oil, grease, trash and debris. Sweeping can be done either manually or with a street sweeper. Accumulated debris will be removed from the parking lots and disposed of in a covered trash receptacle to prevent any wind dispersion.
- Yearly training of employees will be conducted. Training will include review of previously discussed instructions and formal training of new employees.
- Material storage area will be checked to ensure that there has been no damage to it. and to make sure there is no source of potential contact with storm water, such as a leak in the roof.
- Dumpster will be checked to insure cover is not damaged and that it fully covers dumpster.
- Secondary containment product for the fuel tank will be checked to ensure that is still in good condition and able to intercept any fuel spill.
- Steps taken to de-chlorinate the swimming pool water will be documented.

~~• BMP inspections and modifications will be documented.~~

9.2.5 Transportation/Traffic

- Youth campers, who comprise the majority of camp users, shall continue to be transported to and from the camp via bus or vanpool.
- The Retreat Center rental contract shall recommend bus, van or carpool be the mode of transportation.
- To compare the actual project operations with the specific counts outlined in the Traffic Impact Assessment, the applicant shall assign an employee to maintain a daily vehicle log book to record the number of trips to and from the camp and retreat, all arrival/departure times and the type of vehicle (car, van, bus, etc.) The log book shall be available upon request to DPLU.
- Temporary special events shall be limited to four per year and the total site occupancy shall not exceed 615 persons, even during a special event. The applicant shall plan the special events so they do not start or end peak traffic times identified in the Traffic Impact Assessment. Visitors to the Retreat Center shall be encouraged to carpool or vanpool. Youth campers shall be transported to and from the camp by buses or vans.

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